



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

August 29, 2008

Mr. Mark Prescott, Chief  
Deepwater Ports Standards Division (CG-3PSO-5)  
United States Coast Guard Headquarters  
2100 Second Street, S.W.  
Washington, D.C. 20593

Subject: Calypso LNG Deepwater Port Final Environmental Impact Statement;  
Docket Number: USCG-2006-26009; CEQ: 20080274; ERP: CGD-E03017-FL

Dear Mr. Prescott:

Pursuant to Section 309 of the Clean Air Act (CAA) and Section 102(2)(C) of the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA) Region 4 has reviewed the U. S. Coast Guard's (USCG) Final Environmental Impact Statement (FEIS) for the proposed Calypso Liquefied Natural Gas (LNG) Deepwater Port. Under Section 309 of the CAA, EPA is responsible for reviewing and commenting on major federal actions significantly affecting the quality of the human environment. In addition, EPA is a cooperating agency under NEPA for this project because Calypso has applied to EPA for National Pollutant Discharge Elimination System (NPDES) and Clean Air Act (CAA) permits for the construction and operation of this facility.

The FEIS evaluates the proposed construction and operation of the port and associated pipelines with the purpose of delivering and marketing up to a maximum of 1.9 billion standard cubic feet of natural gas per day. Calypso proposes to employ closed-loop shell and tube vaporization (STV) technology aboard a purpose-built Storage and Regasification Ship (SRS) and Transport and Regasification Vessels (TRV).

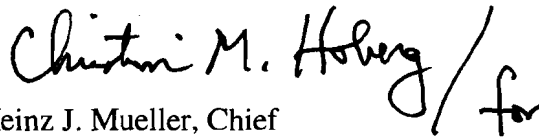
EPA reviewed the Draft EIS and provided substantive comments to the USCG in a letter dated December 17, 2007. Those comments on technical issues have been responded to satisfactorily with only a few exceptions. We suggest that our additional comments pertaining to the Ambient Air Vaporization (AAV) technology alternative receive further consideration. Also, EPA is requesting clarification regarding the capacity and construction of the pipeline to shore. Several additional points of clarification are also part of the enclosure to this letter.

In summary, EPA continues to have some environmental concerns but overall finds the proposed deepwater port environmentally acceptable, provided the vaporization system remains closed-loop for reheating the LNG, and that the proposed safeguards and mitigation for constructing the anchoring system and pipelines as outlined in the FEIS are instituted. The project area is a highly valuable marine environment. It is important for

port operations to adhere to the planned closed-loop vaporization mode to minimize impact to ichthyoplankton and other small or young forms of marine life. We recognize the ease with which on-board operations could be switched to a high-volume seawater withdrawal for open-loop regasification, and request that the modes of operation be carefully logged and reported as conditions of the permits or approvals of this project. Interagency coordination and additional environmental data and technical analyses would be necessary to address potential environmental concerns of any substantial operational shifts. We wish to note, however, that EPA's environmentally preferable alternative is an LNG port employing AAV technology because of the minimal adverse impacts that this technology would have to air quality and the marine environment. Accordingly, EPA requests that the Record of Decision (ROD) identify AAV as the environmentally preferable alternative as prescribed by the NEPA Regulations.

Thank you for the opportunity to review and comment on this document. We encourage open communication between our technical staffs as the NEPA review concludes and permits are considered. If you wish to discuss EPA's comments, please contact me at 404/562-9611 ([mueller.heinz@epa.gov](mailto:mueller.heinz@epa.gov)) or Ted Bisterfeld of my staff at 404/562-9621 ([bisterfeld.ted@epa.gov](mailto:bisterfeld.ted@epa.gov))

Sincerely,

Handwritten signature of Christine M. Holberg, followed by a large forward slash and the letters 'for'.

Heinz J. Mueller, Chief  
NEPA Program Office  
Office of Policy and Management

Enclosure: Additional EPA Comments on the Calypso LNG FEIS

cc: MARAD, Washington, DC  
NMFS, St. Petersburg

## **ENCLOSURE - ADDITIONAL EPA COMMENTS ON CALYPSO LNG PORT FEIS**

Ambient Air Vaporization: AAV provides overall environmental benefits whether it is a direct or indirect type of application. EPA notes the additional information about AAV in the document and USCG's finding on page 2-80 that it is technically feasible. It is still unclear, however, why the finding does not state that the South Florida climate is ideally suited for this technology because of the high average air temperature of 75° F (Miami, Florida) and the minimal annual climatic variability. Other data from Mustang Engineering, a reference source cited by USCG on this page, indicates that when their "LNG Smart Vaporization" ambient air system is compared to conventional combustion heat source alternatives, a fuel gas savings of 99% would be experienced.

FERC-Permitted Pipeline: The construction schedule for Calypso LNG Port, Figure 2.1.5-1, was unclear in the DEIS and is still unclear relative to pipelines associated with the project. EPA assumes the 30-month (912 days) timeline is for construction of the 42.5-mile long FERC-permitted pipeline within U.S. waters, but it is not labeled as such. The FERC document of 2006, appended to this FEIS indicates a 17-month construction period for that pipeline. EPA requests that the ROD should clearly define the proposed timelines for both projects, and USCG/FERC to notify EPA and other agencies of the commencement of construction.

Pipeline Capacities and Interconnections: The USCG comment response was referred to FERC or Calypso EPA's comment regarding the adequacy of the FERC-permitted pipeline size to handle the Calypso Port, and other imports via the pipeline to shore. EPA has not received any response from those parties. Also, there is no description in the final EIS of the interconnection of Port project pipelines to the FERC-permitted pipeline to shore, and whether mitigation of impacts to hard bottom habitats is proposed at these junctures. EPA is asking, now, for additional detail about such mitigation to be included in the Record of Decision (ROD), and for all proposed mitigation of construction impacts to be specifically defined in the ROD.

Seawater Withdrawals: EPA notes the revisions to the Table 2.2.102 of the comparisons of open-loop and closed-loop mode for the shell and tube vaporization at the port. However, the seawater requirement of 152 mgd for the TRS during open-loop vaporization has been deleted. Both the TRV and the SRS have vaporization capability and could be operated concurrently according to text, so the cumulative seawater withdrawal should be defined in this or another table. If the port would not be permitted to operate both ships in open-loop configuration, then this should be indicated and the table is accurate. The text in Section 4.3.1.5 regarding impacts has also been revised, indicating seawater withdrawal would vary substantially over time. Withdrawal would be less than 5 mgd when just the SRS ship is at the port and not vaporizing compared to full operation with other delivery vessels present. Please define in the ROD the operating limitations that should be assumed for federal permits and approvals of the port.

Air Quality Impacts: Calypso has committed to measures that minimize the air quality impacts of the port through use of engine heat, selective catalytic reduction, low NOx burner technology, ultra-low sulfur diesel and dual-fuel capabilities for SRS and TRV vaporizer boilers and engines. However, EPA finds some contradictions in the statements about the fuel use to power the selected propulsion and on-board power generation for the purpose-built SRS. The second and the fifth bullets in Section 4.9.3 do not appear to agree regarding the fuel for SRS. EPA requests that the air mitigation and the use of low emission fuels be clearly defined in the ROD.

Water Intake Screens: EPA's comments on the Draft EIS addressed the large-size screen mesh (2" x 4") proposed for the SRS water intake. We understand the reluctance by ship operators to employ substantially smaller slot size over the ship's intake water chests. The potential for bio-fouling increases because the SRS will be relatively stationary for extended time periods.

In a broader context, if ballast water intakes generally are separate from operational cooling intakes on the global maritime fleet, use of small slot mesh screens could merit investigation for purposes of curtailing the unwanted distribution of some non-native, invasive aquatic species.

Shell and Tube Vaporizers: Section 2.1.3.2 defines the facilities aboard the SRS. One statement on page 2-30 indicates the ship would have 7 vaporization units and another statement says it would have 6 units. Which number is correct or is one unit normally in standby status only?